

PRESENTATION OUTLINE:

Exploring how OpenMP can improve application performance

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1 Introduction (Page 3-9)

- Introduction to Parallel Programming[4]
- Introduction to OpenMP API[11]
- Introduction to Monto Carlo method[5][7]

2 Literature Review (Page 10-14)

- Why OpenMP becomes the standard API for Parallel Programming?[4][12][3]
- Examples using OpenMP for performance improvement[10][8]

3 Problem Statement (Page 15)

- By simply adding more threads, will the performance always improve?[1]
- How many threads are best for parallel applications?

4 Case Study 1 (Page 16-22)

- Experimental Environment
- Calculating PI using OpenMP based on Monte Carlo algorithm[9][6]
- Source code
- Performance Analysis

5 Case study 2 (Page 23-27)

- Experimental Environment
- Matrix multiplication using OpenMP[2]
- Blocked matrix multiplication using OpenMP
- Performance Analysis

6 Summary (Page 28)

- Summary about my presentation

7 Discussion (Page 29)

- Discussion for students

References

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